

Product environmental attributes – THE ECO DECLARATION

The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable).

Additional information regarding each item may be found under P14.

Brand *	ThinkPad	Logo	
Company name *	Lenovo		
Contact information *	Contact information * Lenovo Global Environmental Affairs Alvin L Carter 1009 Think Place Building 2 / 5F1 Morrisville, North Carolina 27560 alcarter@lenovo.com		
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment.html		
Additional information	The latest version of this document can be found at http://www.lenovo.com/social_responsibility/us/en/datasheets_notebooks.html		

The company declares (based on product specification or test results based obtained from sample testing), that the product					
conforms to the statement	ts given in this declaration.				
Type of product *	Notebook PC				
Commercial name *	ThinkPad S1 Yoga 12				
Model number *	20DL, 20DK				
Issue date *	2015-01-15				
Intended market *	☐ Global ☐ Europe ☐ Asia, Pacific & Japan ☐ Americas ☐ Other				
Additional information					

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

Quality	Control	Requireme	nt met
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration		
QC2 *	The company is a member of an eco declaration system that enforces regular independent quality control such as organized by IT-Företagen (see www.itecodeclaration.org).	ol 🔀	

Model number *	20DL, 20DK		
Issue date *	2015-01-15	Logo	lenovo.

Product	environmental attributes - Legal requirements	Require	ment	met
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent chromium, 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See legal reference and Note B1)			
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.			
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC),	\boxtimes		
	hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	_		
P1.4*	Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	\boxtimes		
P1.5*	Products do not contain more than 0.1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	\boxtimes		
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS), Tris-(aziridinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.7*	Textile and leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1)			
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as pentachlorophenol and derivatives (see legal reference). Comment: Legal reference has no maximum concentration values.			
P1.9*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5 microgram/cm²/week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.			
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.lenovo.com/social_responsibility/us/en/materials.html			
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is provided in user manual. (See legal reference)			
P2.2*	Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	\boxtimes		
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the design of the product). Exception: Batteries that are permanently installed for safety, performance, medical or data integrity reasons do not have to be "easily removable". (See legal reference)			
P3	Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).	\boxtimes		
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	\boxtimes		
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies with legally required standards for radio and telecommunication devices (see legal reference).			
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	\square		
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see legal reference and Note B1).			
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).		П	\square
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).			
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium and hexavalent chromium by weight of these together.			
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	\boxtimes		
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.			

Note B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

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Product	environmental attributes - Market requirements - Environmental conscious design	Require	ment	met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P6	Treatment information			
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).	\boxtimes		
P7	Design			
D7.4*	Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable			<u> </u>
P7.2*	Plastic materials in covers/housing have no surface coating.		\boxtimes	
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.			\boxtimes
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.			\boxtimes
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.	\boxtimes		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		\blacksquare	T
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		П	\Box
P7.8*	Upgrading can be done using commonly available tools		Ħ	∺
P7.9.				∺
P7.10	Spare parts are available after end of production for: 5 years			╫
F1.10	Service is available after end of production for: 5 years			
P7.11*	Material and substance requirements Product cover/housing material type:			
F1.11	Material type: PPS Material type: PC+ABS Material type: PC			
	Material type: PC+TPU Material type: POM			
	Material type: Magnesium			
P7.12	Electrical cable insulation materials of power cables are PVC free.		\boxtimes	
P7.13	Electrical cable insulation materials of signal cables are PVC free		\blacksquare	\blacksquare
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.		Ħ	一一
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See		\dashv	∺
1 7.10	Note B2)			ш
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4:			
	Marking:			
P7.17	Alt. 1			
	Chemical specifications of flame retardants in printed circuit boards >25g (without components):			
	TBBPA (additive), TBBPA (reactive), Other; chemical name: DOPO(9,10-dihydro-9-oxa-10-			
	phosphaphenanthrene-10-oxide), CAS #: 35948-25-5			
	Alt. 2			
	Chemical specifications of flame retardants in printed circuit boards (without components) >25g according	ш		ш
	ISO 1043-4: FR(40)			
P7.18	Alt. 1			_
	Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in concentrations above 0.1%:	· 📙		\boxtimes
	Comment: No legal limits exist, this is a market requirement. 1. Chemical name: CAS #:			
	2. Chemical name: , CAS #:			
	3. Chemical name: , CAS #:			
	Alt. 2			
	Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:			
		_ <u></u>	Щ.	<u> </u>
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)			\boxtimes
D7.00				
P7.20	Of total plastic parts' weight >25g, recycled material content is 0.12%.			
P7.21 P7.22	Of total plastic parts' weight >25g, biobased material content is 0%. Light sources are free from mercury	\square		
	If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg		Ш	Ш
P8	Batteries			
P8.1*	Battery chemical composition: Lithium-ion/Lithium Manganese Dioxide			
P8.2	Batteries meet the requirements of the following voluntary program/s: IIS Call?Recycle_FPRA_IBRC			一一

Note B2: IEC61249-2--21 has maximum limits for chlorine and bromine but does not address fluorine, iodine and astatine which are included in the group of halogens.

Note B3: 'Starting from January 2009, Risk phrases can be replaced by Hazard phrases according to the Globally Harmonized System (GHS), mandatory by December 2010.

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Product environmental at	oduct environmental attributes - Market requirements (continued) Requirement met					
Item	Yes No n.a					
P9 Energy consumption						
9.1 For the product the following power levels or energy consumptions are reported: See P14						
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level a 230 V AC	t Reference / Standard for energy modes and test method *		
Peak (On-max)	45 W	45 W	45 W	Full load		
Category 0	1	•			.1	
Short Idle State - WOL Enab	led W	W	W	Use for ENERGY STAR V6.1 registration (P _{idle})		
Long Idle State - WOL Enabl	ed W	W	W	Use for ENERGY STAR V6.1 registration (P _{idle})		
Sleep (S3) - WOL Enabled	W	W	W	Use for ENERGY STAR V6.1 registration (P _{sleep})		
Off (S5) - WOL Enabled	W	W	W	Use for ENERGY STAR V6.1 registration (Poff)		
Category I1					-	
Short Idle State - WOL Enab	led 5.769 W	5.668 W	5.836 W	Use for ENERGY STAR V6.1 registration (P _{idle})		
Long Idle State - WOL Enabl	ed 3.339 W	4.014 W	3.427 W	Use for ENERGY STAR V6.1 registration (P _{idle})		
Sleep (S3) - WOL Enabled	0.466 W	0.463 W	0.463 W	Use for ENERGY STAR V6.1 registration (P _{sleep})		
Off (S5) - WOL Enabled	0.270 W	0.212 W	0.212 W	Use for ENERGY STAR V6.1 registration (Poff)		
EPS No-load	0.083 W	0.083 W	0.123 W			
(External power supply / charged in the wall outlet but disconnected from the product						
PTEC * Typical Energy Consumption	W	W	W			
TEC * Typical Energy Consumption	kWh/week	kWh/week	kWh/week			
ETEC * Annual Energy Consumption	20.11 kWh/year	20.29 kWh/year	20.61 kWh/year	$E_{TEC} = (8760/1000) \times (P_{off} \times 0.25 + P_{sleep} \times 0.35 + P_{long_idle} \times 0.10 + P_{short_idle} \times 0.30)$		
	P _{off} : Off Mode(S5	b) - WOL Enabled; F	P _{sleep} : Sleep Mode	e(S3) - WOL Enabled; P _{idle} : Idle State - WOL Enabled		
Display resolution* : 2.07 Meg	gapixels					
Print Speed * : In	nages per minute				\boxtimes	
Default time to enter energy sa	ave mode: 20 minutes	3				
P9.2* Information about	the energy save func	tion is provided wi	th the product.			
•	the energy requirem version: Version 6.1		ng voluntary pro duct category: <i>I</i>			
P10 Emissions						
	Declared according to	to ISO 9296				
P10.1 Mode	Mode description		Declared A-weighte	d sound pressure level I_{A} (dB)		
			sound pow	CI	-	
			level $L_{W\!Ad}$	Desktop		
				or Desk side (only if product is not operator attended)		
Idle	Idle mode		* 2.7	17		
Operation	Operating (HDD)		* 2.9	20		
Other mode	Operating (CPU)		* 2.9	21	1	
Measured accordi	ng to: 🔀 ISO7779 🔀					
D40.0 The conduct of	Other	•		4 with L _{pAm} measurement distance m)		
P10.2 The product meets	the acoustic noise re	equirements of the	iollowing volun	tary program/s:		

Model nui	mber *	20DL, 20DK				
Issue date	e *	2015-01-15	Logo	lenov	/O .	
	environn	nental attributes - Market requirements (continued)		Requirer		met
Item				Yes	No	n.a.
	Chemica	al emissions from printing products				
P10.3*		formed according to ECMA-328 (ISO/IEC 28360) standard, other specify:				\boxtimes
P10.4	Typical e	emission rate (print phase) is (mg/h):				\boxtimes
		Dust Ozone Styrene Benzene TVOC				
P10.5		Il emission requirements of the following voluntary program/s are met for : Oust Ozone Styrene Benzene	TVOC 🗌			
	Electron	nagnetic emissions				
P10.6		er display meets the requirement for low frequency electromagnetic fields of the follows: 1.MPR-II; 2.JEITA	wing voluntary			
P11		able materials for printing products				
P11.1*	A Safety	Data Sheet (SDS) is available for the ink/toner preparation, even if not legally requ	red (see P4.3).			\boxtimes
P11.2*	Paper co EN1228	ontaining post-consumer recycled fibers can be used, provided that it meets th 1.	e requirements	of		\boxtimes
P11.3*	2-sided (duplex) printing/copying is an integrated product function.				\boxtimes
P12	Ergonor	nics for computing products				
P12.1*	The disp	lay meets the ergonomic requirements of ISO 9241-307 for visual display technolog	jies.	\boxtimes		
P12.2*	The phys	sical input device meets the requirements of ISO 9995 and ISO 9241-410.		\boxtimes		
P13		ng and documentation				
P13.1*	Product	packaging material type(s): 80% Recycled Corrugated Cardboard weight (kg packaging material type(s): 100% Recycled Bamboo Fiber Cushion weight (kg packaging material type(s): Others (plastic bags) weight (kg)): 0.195			
P13.2*	Product	plastic packaging is free from PVC.		\boxtimes		
P13.3*		nedia for user and product documentation (tick box):				
		c 🔲, Paper 📐, Other 🗌				
P13.4*	fiber: 0°		nsumer recycled			
P14		al information (See Note B4)				
	informati knowledo provided informati		t is provided bas te such informati	ed on supp on. The info	lier's ormati	on
P9		rgy Star Qualified Notebooks & Tablet Computers for the latest information: ww.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup	&pgw_code=C0)		

Note B4: Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Model number *

Legal references Europe Annex B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
REACH, Annex XVII	P1.6, P1.8, P4.2
REACH, Annex XVII	P1.4
REACH, Annex XVII	P1.2
REACH, Annex XVII	P1.7
REACH, Annex XVII	P1.9
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000	P1.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
2006/66/EC (Battery and accumulators Directive)	P2.1, P2.2, P2,3, P3.4, P8.1
2006/95/EC (Low Voltage Directive)	P3.1, 3.4
2004/108/EEC (New EMC Directive)	P3.2, 3.4
1999/5/EC (R&TTE Directive)	P3.3, 3.4
"REACH" Regulation (1907/2006), annex VII	P1.10
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P4.3
REACH article 31, annex II	P4.3
2004/12/EC (Directive on packaging and packaging waste)	P5.1
(97/129/EC) (Commission Decision on Identification System for Packaging Materials	P5.2
2037/2000/EC Regulation on Substances that Deplete the Ozone Layer	P5.3
2002/96/EC (WEEE directive)	P3.4, P6.1
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P7.19

Lenovo ErP Lot3 Information Sheet - PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	ThinkPad S1 Yoga 12	Logo
Model Number	20DL, 20DK	_
Issue Date	2015-01-15	lenovo.
Additional information		

d)	year of manufacture:	2015				
e)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics ca disabled and if the system is tested with switchable graphics mode with UMA driving the display:	rds (dGfx) are				
	Category (according to ErP Lot 3): A Etec: 12.083					
f)	E TEC value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enabled:					
	Category (according to ErP Lot 3): A Etec: 13.665					
(g)	idle state power demand (Watts);	3.977				
(h)	sleep mode power demand (Watts);	0.469				
(i)	sleep mode with WOL enabled power demand (Watts) (where enabled);					
(j)	off mode power demand (Watts);					
(k)	off mode with WOL enabled power demand (Watts) (where enabled);					
(1)	internal power supply efficiency at 10 %, 20 %, 50 % and 100 % of rated output power (if applicable):					
	10% 20% 50% 100% Average					
(m)	external power supply efficiency (if applicable):					
	Average: 45W: 87,27%,87,31%,88,83%					
(o)	the minimum number of loading cycles that the batteries can withstand (applies only to notebook computers):					
(p-1)	the measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency:					
(p-2)	the measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: EPA "Test Method for Calculating the Energy Efficiency of Single-Voltage External AC-DC and AC-AC					

(p-3) the measurement methodology used to determine information mentioned in points (o) – loadingcycles batteries:							
IEC 61960 measurement methodology							
(p-4) the measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration:							
IEC 62623 measurement methodology							
(q) sequence of steps for achieving a stable condition with respect to power demand::							
IEC 62623 measurement methodology							
(r) description of how sleep and/or off mode was selected or programmed:							
By selecting sleep and/or off mode thru Windows operating system							
(s) sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode:							
Automatically changes to sleep after 20 minutes							
` '	the duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes): 20 minutes						
(u) the length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode (in minutes): NA							
(v) the length of time before the display sleep mode is set to activate after user inactivity (in minutes): 10 minutes							
(w) information on the energy-saving potential of power management functionality:							
User information described in User Guide and Power Manager under ThinkVantage menu in all programs							
(x) user information on how to enable the power management functionality:							
User information described in User Guide and Power Manager under ThinkVantage menu in all programs							
(z) test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing:							
230V, 50Hz, Total Harmonic Distortion <2 %							
Addition Notebook B	attery Information:						
Yes	No	n/a	This notebook computer is operated by battery/ies that cannot be access by a non-professional user.	sed and replaced			
(Battery not user replaceable)	(Battery user replaceable)		The battery[ies] in this product cannot be easily replathemselves	ced by users			
Additional information							